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published in
International Journal of Social Welfare
2016

DOI (link to publisher)
10.1111/ijsw.12206

document version
Version created as part of publication process; publisher's layout; not normally made publicly available

DOI: 10.1111/ijsw.12206
Int J Soc Welfare 2016: **25**: 347–360

INTERNATIONAL
JOURNAL OF
SOCIAL WELFARE
ISSN 1369-6866

Institutions and structures as barriers? A comparison of native-born and immigrant unemployment durations across 12 European countries

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This study investigated the effect of institutions on the unemployment duration gap between non-EU immigrants and native-born in 12 European countries. Going further than the existing literature, our study encompassed unemployment duration, distinguishing between exits to inactivity, primary and secondary employment. Additionally, we have provided a stronger micro-foundation to the comparative literature by introducing institutional measures for unemployment-related benefits at the individual level rather than merely using aggregate proxies. Our analysis found no disincentive effects of benefits for immigrants. Furthermore, the employment prospects of immigrants were better when the demand for low-skilled labour was high, and immigration policy was labour market-oriented. In contrast, employment protection legislation did not affect the unemployment duration of immigrants.

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Key words: immigrants, ethnic minority groups, social welfare policy, the labour market, social and economic justice, labour market institutions

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Accepted for publication 11 January 2016

Introduction

In recent decades, Western Europe has become the destination for immigrants originating from all over the world. In most countries, the labour market integration of these immigrants has proven problematic. Sometimes even second-generation immigrants have lower labour market participation rates (Hammarstedt & Ekberg, 2004). A crucial indicator of the poor labour market integration is their relatively high unemployment rates which, at times, more than double that of native-borns (OECD, 2008). This unemployment gap has caused political and public concern as it is assumed to challenge social cohesion and to undermine the sustainability of welfare states (Bask, 2005; Bauer et al., & Sinning, 2011; Zimmermann, 1995). In some countries, benefits have also been criticised as creating welfare dependency, particularly for immigrants (Corrigan, 2010).

However, the unemployment gap between immigrants and the native-born varies across countries, largely following the pattern of the different types of welfare states. In particular, immigrants appear to have great difficulty in gaining a foothold on the Scandinavia and some Continental European labour markets, whilst integration seems to be less problematic in the rest of Europe, especially in the Anglo-Saxon and Southern European countries (OECD, 2008).[1] An emerging body of comparative research has tried to explain this by suggesting that: '... immigration policies, labour market structure and regulations, and welfare regimes influence the basic mechanism of labour market allocation - that is, how these structural components shape employers' and job seekers' resources and preferences, which determine the way individuals are matched with jobs' (Kogan, 2007, p. 183; see also Reitz, 1998).

Despite the merits of the scarce comparative literature on the unemployment gap between native-born and immigrants, it has three main shortcomings. First, studies have typically relied on a single measure, either the unemployment rate at the macro level or unemployment incidence at the individual level. In fact, unemployment persistence or duration has rarely been used in the cross-country comparative

[1] It should be noted that the integration of immigrants in Scandinavia has improved in recent years, possibly because of the implementation of various types of integration measures.

literature. Only Kogan (2004a) has measured unemployment duration with monthly precession while comparing immigrant performances in Germany and the UK. It is more interesting to know how host country institutions or structures influence unemployment duration. Long-term unemployment poses a greater threat to the labour market integration of immigrants than does the high incidence of unemployment in itself, because it is often associated with skills depreciation, worker discouragement and ultimately with stigma and marginalisation. Furthermore, information about unemployment duration provides further insights into the large unemployment gap between immigrants and the native-born as it provides knowledge on the mechanisms that delay transitions to employment for immigrants. With this knowledge, it is easier for policy makers to design efficient policies for improving the labour market integration of immigrants. Second, most studies ignore the fact that because immigrants are predominantly employed in low-skilled jobs, their inferior labour market integration may have more to do with the quality of jobs than with their aggregate job-finding probability (Kogan, 2007). Transitions from unemployment to inactivity have also been neglected. Immigrants may be more affected by the 'discouraged worker problem' than are native-born, as they may simply stop searching for a job because of repeated refusals. This would lead to higher rates of 'hidden' unemployment among immigrants. Thirdly, previous research has relied mainly on macrolevel indicators when investigating institutional effects. The effect of economic incentives is typically measured by including welfare regime dummies (Fleischmann & Dronkers, 2010; Kogan, 2006), by comparing countries belonging to different types of welfare states (Kesler, 2006), or by an index for the generosity and duration of unemployment benefits (Reyneri & Fullin, 2011). This is particularly problematic because there are large variations in policies even for countries belonging to the same welfare regime (see the Data section in this article). Moreover, these indexes are constructed to capture aspects of welfare state policies for the native-born and therefore do not necessarily apply to immigrants. Another problem is that a vast economic literature shows that disincentive effects of unemployment benefits are determined at the individual level and not at the country level (Holmlund, 1998; Mortensen, 1977). For this reason, even though the aforementioned research that relies on macrolevel indicators provides valuable nuances to the cross-national debate about the labour market integration of immigrants, its microfoundation is somewhat less developed.

The aim of this study was to investigate the influence of host country features—unemployment benefits, immigration policy, employment protection legislation (EPL) and employment structure—on differences in unemployment duration between non-EU immigrants and native-born in 12 European countries. In particular, we contrasted two theoretical explanations about the effect of benefits. The first is an explanation that builds on the comparative theoretical framework and predicts that unemployment benefits create disincentives for immigrant employment (Kesler, 2006; Kogan, 2006, 2007). The second explanation suggests that there are no disincentive effects specific to immigrants and that access to benefits can even improve their labour market integration (see further discussion in the next section). Concerning the other three institutions/structures, we followed the theoretical approach of previous studies (Fleischmann & Dronkers, 2010; Kesler, 2006; Kogan, 2007; Reyneri & Fullin, 2011). More specifically, we expected that immigrants will suffer from more persistent unemployment when the demand for low-skilled labour is low, the EPL is strict and when the immigration policy has a humanitarian focus. Our analysis therefore extends the existing literature in three ways. First, we provide a stronger microfoundation to the comparative literature by having introduced institutional measures for unemployment-related benefits at the individual level rather than merely using aggregate proxies. Second, we focused on unemployment duration and not on unemployment incidence. Third, we distinguished between transitions from unemployment into three states: inactivity, primary labour market, and secondary labour market. The method we applied is a competing-risk event-history model using monthly data from the European Community Household Panel (ECHP).

The outline of the study is as follows. The next section provides a review of the literature. The data and methodology are discussed in the third section. The results and conclusions are presented in the fourth and fifth sections, respectively.

Host country characteristics and immigrant unemployment

Unemployment benefits: disincentive effects or efficiency gains for immigrants?

From job search theory and a vast empirical literature, we know that benefits increase unemployment duration (for an overview, see Holmlund, 1998; Mortensen, 1977). In greater detail, benefits reduce search intensity and increase the reservation wage of the unemployed, which in turn makes them inclined to prolong their unemployment spell (Mortensen, 1977).

The comparative literature implicitly builds on this line of thought, but inflates it to macrolevel and combines it with the theory of welfare regimes put forward by Esping-Andersen (1990). One of the major contributors is Kogan (2007) who suggested that the

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unemployment gap between immigrants and native-born is smaller in countries where the welfare system is meagre or discriminates against the foreign-born (especially the Southern European welfare states). This is because the immigrants' initial labour market disadvantages (related to discrimination, lack of a network, country specific human capital and knowledge about the labour market etc.) are likely to be offset by their relatively stronger work incentives in these countries, or a lower reservation wage to use the terminology of job search theory (see also Mortensen, 1977).[2] In contrast, the unemployment gap is larger in the Scandinavian countries because their open and generous welfare states allow immigrants to sustain job search longer. According to Kogan (2007), immigrants are therefore also less likely to be pushed into the secondary labour market in Scandinavia, but can wait for a good job in the primary labour market (Kesler, 2006; Kogan, 2006, 2007).

Following this idea, but applying it to individual level mechanisms rather than country level aggregates, immigrants who receive generous benefits should have an even lower chance than native-born to receive a wage offer that exceeds their reservation wage. As a result and in line with the economic and comparative literature, (generous) benefits will delay transitions to employment more for immigrants than for native-born (Hypothesis 1).

Nevertheless, benefits can also produce certain efficiency gains. From this perspective, unemployment-related allowances first of all provide financial resources and hence create incentives to continue active job search (see e.g., Addison & Portugal, 2003; Rosholm & Vejlin, 2010). Secondly, providing financial resources to the unemployed may also indirectly improve their personal resources by partly preventing the decline in psychological well-being observed during unemployment (Ervasti & Venetoklis, 2010; Fryer, 1986; Goul Andersen, 2002; Leana & Feldman, 1988; Nordenmark Strandh, & Layte, 2006; Whelan, 1992). This is crucial, as we know that psychological well-being is an important determinant for job search behaviour and subsequent employment outcomes (Meyers & Houssemand, 2010). Furthermore, welfare states that provide generous unemployment benefits are also more inclined to grant extra support (and monitoring) from public employment agents. Support in terms of job search assistance and contacts with employers increase the job offer arrival rate and transition to employment. All in all, because immigrants, on average, face more severe employment barriers, these efficiency gains, or 'resource effects', are, according to this alternative perspective, likely to be stronger for immigrants than for native-born and counterbalance or neutralise the negative effects expected in Hypothesis 1. Consequently, the impact of unemployment-related benefits on transitions to employment (both primary and secondary) would be similar for immigrants and native-born. Furthermore, if immigrants are more likely than the native-born to become discouraged because of the abovementioned disadvantages, the resources from benefits may be relatively more important for preventing immigrants exiting to inactivity (Hypothesis 2).

Labour market institutions and structures

Labour market institutions and structures are also likely to affect the unemployment-duration gap between immigrants and native-born (Cohen & Kogan, 2006; Fleischmann & Dronkers, 2010; Kogan, 2006). The EPL affects the employers' hiring and firing costs and thus the wage offer distribution.[3] Arguably, strict EPL makes employers screen job applicants more carefully in order to spot potential low-productive workers (Gangl, 2012; Giesecke & Groß, 2003; Kogan, 2007). In the absence of perfect information on worker productivity, employers may give preference to applicants from groups that are assumed to have a high average productivity. Using observed characteristics as proxies for productivity, employers apply 'statistical discrimination' against several groups, for example women, young people and immigrants (Kogan, 2006; Phelps, 1972). This may increase their unemployment duration. In contrast, employers in flexible labour markets are assumed to be more prone to use a trial and error strategy as a screening device (Giesecke & Groß, 2003). Therefore, immigrants should have more employment opportunities in flexible labour markets.

However, strict EPL may also account for the higher ethnic occupational segregation in some countries. If the EPL is strict, immigrants may increasingly be 'pushed' into the secondary labour market where the regulation tends to be more flexible than in the primary—even in otherwise strictly regulated labour markets (Kogan, 2007). Consequently, we therefore expect that strict EPL leads to longer unemployment duration for immigrants—especially when making the transition into the primary labour market—and increases transitions into inactivity (Hypothesis 3).

Additionally, as there is less competition and lower appreciation of human capital in the secondary labour market, immigrants should have better job opportunities in this sector (Kogan, 2007; Piore, 1986). The acceptance of poor jobs by immigrants is believed to be due to their ignorance about the host-

[2] The reservation wage refers to the lowest wage offer that the unemployed will accept.

[3] Here, we use the terminology of job search theory. This refers to the distribution of wages that are 'offered' to the unemployed.

country's labour market, their expectation of a temporary stay in Europe (Bonacich, 1972; Kogan, 2004b; Piore, 1986) and the even poorer job quality in their country of origin (Piore, 1986). Consequently, previous research has confirmed that immigrants find jobs easier in labour markets that have a high demand for low-skilled labour (Kogan, 2006; Reyneri & Fullin, 2011). In line with this, we therefore anticipated that transitions to the secondary sector increase relatively more for immigrants as the demand for low-skilled labour increases (Hypothesis 4).

Immigration policy

Finally, immigration policy and tradition are also likely to affect the labour market integration of immigrants (Kogan, 2003; Lewin-Epstein et al., 2006). Asylum seekers and refugees are generally among the groups that experience the greatest difficulties in the labour market. This may be explained by the existence of mental and physical problems (see e.g., Kivling-Bodén & Sundbom, 2001), but also the fact that many come from countries where transferability of human capital to a European context is more difficult. Following this line of reasoning, if immigration policy is strict and tailored to meet labour market needs, immigrants are easier to integrate. However, if immigration policy is strongly affected by humanitarian considerations giving preference to refugees and asylum seekers, the labour market integration of immigrants is expected to be poorer (Borjas, 1987; Chiswick, 1999; Kogan, 2007). Consequently, we foresee that the more the immigration policy is influenced by humanitarian considerations, the longer is the unemployment duration of immigrants compared with that of the native-born, and the more likely immigrants are to leave the labour force (Hypothesis 5).

Data and methodology

Data

In this study, we used the European Community Household Panel (ECHP), a high-quality standardised longitudinal household survey conducted in 15 European countries (EUROSTAT, 2001). The ECHP consists of 8 waves covering the years 1994–2001. The data provide extensive information on labour market status, job and demographic characteristics, and offer retrospective monthly information for every year prior to the survey. This means that we had longitudinal information for 96 months. The latter feature makes ECHP particularly suitable for event-history analysis (see e.g., Tatsiramos, 2009).[4]

The analysis focused on unemployed individuals from 18 to 65 years. Only 12 of the 15 ECHP countries were used in our analysis, as we had to exclude Ireland, The Netherlands, and Sweden due to data limitations. In greater detail, following the principle of Pichler (2011), we excluded Ireland due to a small immigrant sample. The Netherlands and Sweden were excluded because monthly employment information was unavailable. After deleting these countries and left-censored spells,[5] our sample included 36,810 unemployment spells of which 1,458 referred to non-EU immigrants from non-Western countries.[6]

The definition of immigrant status was based on the continent of birth (Eastern Europe, Africa, Asia, or South America) rather than on citizenship.[7] This definition is more comparable across countries in that citizenship legislation differs considerably between European countries. We would have preferred an even more detailed distinction according to the country of birth as we acknowledge that characteristics of the country of origin and the conditions of migration are relevant for determining immigrants' labour market outcomes (e.g., van Tubergen et al., 2004). This information is, however, unavailable.

The variable referring to unemployment benefits is central to our analysis. We constructed a time-varying variable indicating the monthly amount of unemployment benefits. As ECHP does not provide direct information about monthly amounts, we derived this information from the yearly amount of unemployment benefits, the number of months in unemployment and from whether the individual was receiving unemployment benefits at interview time. We further defined the replacement rate as the monthly amount of unemployment benefits relative to the monthly salary in the last

[4] Other studies on the outcomes of immigrants in Europe have also used the ECHP (e.g. Adsera & Chiswick, 2006; Buchel & Frick, 2005; Williams, 2011).

[5] Left-censoring – individuals who were unemployed at the onset of the survey – has partly been taken into account. More specifically, most left-censored cases were included in the analysis as the missing unemployment duration was recalculated using variables PJ002 and PJ003 of the ECHP database, which provides information on the time that the person stopped his/her last job. We deleted the left-censored spells where these variables were missing. The results are not sensitive to the inclusion of these left-censored spells (results of this sensitivity analysis are available on request).

[6] These unemployment spells refer to 21,325 individuals, of whom 979 are non-EU immigrants. Sensitivity analysis indicated that the results are neither sensitive to the inclusion of countries with relatively small immigrant samples nor are they driven by the countries with the largest immigrant samples (results are available on request).

[7] For 9 countries we used the variable pm007c or pm007b which distinguishes between being born in the country of residence or in a different region of the world. In case this information was unavailable (either if it was missing or in the case of Germany, Luxembourg or Greece), immigrant status was reported 'Unknown'.

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Table 1. Differences in the average replacement rate between natives and immigrants (for individuals unemployed 6 months or less)

	Average replacement rate for natives	Average replacement rate for non-EU immigrants	Difference – immigrants compared to natives
UK	50-75 %	+75 %	↑*
Denmark	+75 %	+75 %	↑
Finland	+75 %	+75 %	↑
Belgium	+75 %	+75 %	↓
Germany	+75 %	+75 %	↓*
France	+75 %	+75 %	↑
Luxembourg	+75 %	+75 %	↓*
Austria	+75 %	50-75 %	↓*
Portugal	+75 %	50-75 %	↓*
Spain	50-75 %	50-75 %	↓
Italy	+75 %	+75 %	↑
Greece	25-50 %	25-50 %	↑

Note: *Indicates whether immigrants on average receive significantly more or less than natives.

job.[8] To account for benefit duration, we included a variable indicating whether the individual was close to benefit exhaustion using the benefit-generosity index of Scruggs and Alan (2006). As evident from Table 1 below, differences in replacement rates between immigrants and native-born varied across the countries. In the UK, the replacement rate of immigrants was higher than that of native-born for the first 6 months, which could be explained by the types of jobs that are held by immigrants. From previous studies we know that the labour market position of migrants in the UK is polarised, as immigrants are overrepresented in the bottom and the high end of the labour market (Dustmann et al., 2005). Migrants also have a higher replacement rate than native-born in the two Scandinavian countries, Denmark and Finland. In the case of Denmark, this is probably because unemployment insurance is de facto a flat rate for nearly everybody (Goul Andersen, 2011). This also means that when immigrants are overrepresented at the bottom end of the wage distribution, their replacement rate will, on average, be higher than that of the native-born. In most Continental and Southern European countries, immigrants generally receive benefits with a lower replacement rate than for native-born. In the Austria, immigrants have much less access to unemployment insurance than native-born (Winter-Ebmer & Zweimüller, 1999).

Following Kogan (2006, 2007), Fleischmann and Dronkers (2010) and Reyneri and Fullin (2011), we also used three macro variables. First, the EPL index

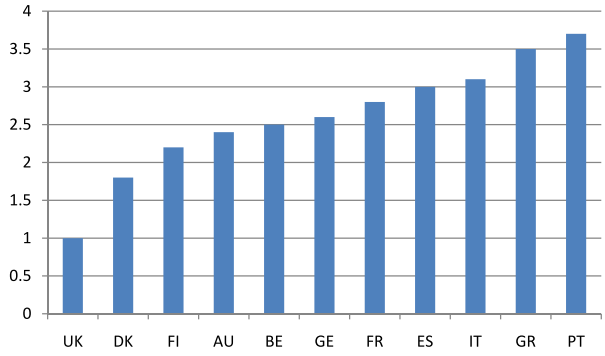

Figure 1. Employment protection legislation in the EU (average for the late 1990s).

(time varying) is based on the level of hiring and firing regulations and the easiness of using temporary contracts (OECD, 2004). Hiring and firing regulations were the weakest in the UK and in the two Scandinavian countries, Finland and especially Denmark, while they were the strictest in the Southern European countries (see Figure 1).

Second, the size of the secondary labour market is a time-varying variable measuring the percentage of workers employed in this sector according to the ISEI occupational scale (Ganzeboom & Treiman, 1996). The secondary sector includes the unskilled, semi-skilled and low-skilled occupations that are assigned the scores 16 to 33 on the ISEI-scale (for further discussion, see Kogan, 2007). In the late 1990s, there was considerable variation in the size of the secondary labour market across Europe (see Figure 2). The availability of low-skilled jobs was the largest in Southern Europe—almost 50% of all jobs in Portugal belonged to the secondary sector—whereas this sector was much smaller in North-Western Europe (e.g., in the UK it amounted to ∼18%).

Third, we used the percentage of asylum seekers in relation to the total population of incoming non-EU

[8] The replacement rate was calculated as a percentage of unemployment benefits relative to the previous wage. If wage for the previous time period (T-1) was missing for a specific individual, we replaced wage by the value for T-2. In cases where wage is missing for the whole observation period, we imputed wage by the average predicted wage for individuals in a specific country with similar observed characteristics.

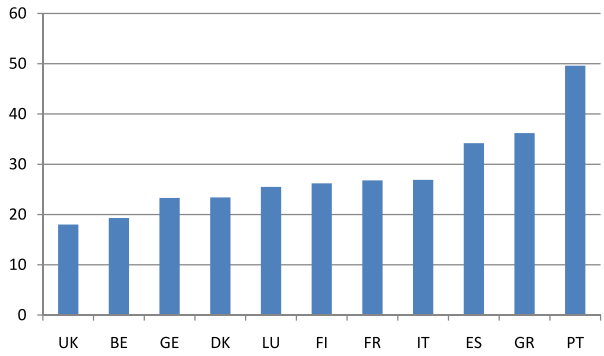

Figure 2. The secondary sector as pct. of the total labour market (average for 1995–2000).
Source: Kogan (2007), based on calculations from the EU-LFS.

migrants as a time-varying macro-level proxy for the focus of immigration policy (see also Kogan, 2007).[9] As shown in Table 2, the proportion of asylum seekers varied among the countries under scrutiny. It was mainly the Scandinavian countries, Spain, Belgium and The Netherlands that received many humanitarian migrants. The exception was Finland, which, as other new migration countries, received much fewer asylum seekers (Kogan, 2007).

The cross-country variations we observed within the same welfare regime give further support to the argument that it is necessary to measure institutional factors more precisely than by the welfare regime approach.[10]

The list of control variables included measures for human capital, equivalent household income, demographic characteristics, the sequence of the unemployment spell, regional unemployment rates, country- and year-dummies. Table 3 presents the descriptive statistics for the main control variables separately for immigrants and native-born for the first and sixth unemployment month. According to these statistics, most migrants originate from Eastern Europe and Africa and are on average a few years older than the native-born. The immigrants are more likely than the native-born to have children below the age of 12 and to be married. It is also interesting to note that unemployed immigrants, on average, have a higher educational level, but unlike native-born, it is not the most highly educated immigrants that exit unemployment first.

Methodology

We employed an event-history model distinguishing between three competing risks—inactivity, primary labour market, secondary labour market—to study how institutions influence the labour market integration of immigrants. Besides studying how benefit generosity, EPL, demand for low-skilled labour and immigration tradition influence the native-born/immigrant gap in unemployment duration, we also examined the state that follows an unemployment spell. Specifically, we studied whether unemployment is followed by employment or inactivity and, in the case of employment, we distinguished between exits to the primary and the secondary labour market. The distinction between the primary and secondary labour market follows the definition that was explained above.

Formally, we followed the approach of Allison (1982), who showed that, if the data are organised in a person-month file, it is possible to estimate a duration model with competing risks using a multinomial logit regression. In this model, the dependent variable is the conditional probability that an individual i makes the transition into state m in time point t conditional that (s)he has remained unemployed until time point $t-1$. This conditional probability depends on a function of unemployment duration t – duration dependence – and on several institutional and demographic characteristics.[11] We also included fixed effects for the countries of reference. After testing several functions for duration dependence (piecewise constant, linear, log linear, curvelinear functions) by comparing the model fit measures Akaike Information Criterion and Bayesian Information Criterion (AIC and BIC), we used the logarithmic specification that

[9] This variable is included in the model as a categorical variable (ranging from less than 20% to more than 40%) as this specification demonstrated the best model fit measures.

[10] For a detailed description and discussion on cross-country variation in the institutional setup that is relevant for the labour market integration of immigrants, see Kogan (2007) and Diop-Christensen (2014).

[11] The multinomial logistic regression is an extension of the binary logistic regression to model an outcome variable with more than two categories. In the binary logistic regression, the outcome variable is a transformation (i.e., *logit*) of the probability for membership of one category. In the multinomial logistic regression, we predict membership of more than two categories. For example, if the outcome variable has four categories (1, 2, 3, 4), the multinomial logistic regression consists of three comparisons where membership to one category is compared each time with membership in one of the other three. In practice, this means that one always needs to select a baseline category. In our case, unemployment is the reference or baseline category (1), while inactivity (2), employment in the secondary labour market (3) and in the primary labour market (4) are the other three states. This means that the data are organised in such a way that there is a line for each month an individual is unemployed and a corresponding variable indicating the duration of unemployment until that time point (e.g. 12 if the individual has been unemployed for one year). If this observation is followed by an observation where the individual is still in unemployment, the dependent variable takes the value 1. The dependent variable also takes the value 1 if this is the last observation of the individual (i.e., the spell is right-censored). If the observation is followed by an observation where the individual is in inactivity (secondary and primary labour market, respectively), the dependent variable takes the value 2 (3 and 4, respectively). In this case, no further observations from this individual are included in our analysis.

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Table 2. Immigration flows

	Non-nationals by main countries of citizenship in the EU15	% Non-EU15	% Asylum seekers
UK	21 % Ireland, 6 % India, 5 % USA, 4 % Italy, 3 % Pakistan, 3 % Bangladesh, 3 % Germany, 10 % other EU-citizens, 45 % others.	57 %	36 %
Denmark	16 % Turkey, 8 % Bosnia and Herzegovina, 5 % UK, 5 % Fed. Rep. of Yugoslavia, 5 % Norway, 5 % Somalia, 5 % Germany, 7 % other EU citizens, 44 % others.	78 %	53 %
Finland	24 % Russian Federation, 12 % Estonia, 10 % Sweden, 7 % Somalia, 4 % Fed. Rep. of Yugoslavia, 3 % Iraq, 3 % Vietnam, 10 % other EU-citizens, 27 % others.	80 %	20 %
Belgium	24 % Italy, 15 % Morocco, 12 % France, 9 % Netherlands, 8 % Turkey, 5 % Spain, 4 % Germany, 10 % Other EU-citizens, 13 % others.	36 %	64 %
Germany	29 % Turkey, 10 % Fed. Rep. of Yugoslavia, 8 % Italy, 5 % Greece, 4 % Poland, 4 % Bosnia and Herzegovina., 3 % former USSR, 12 % other EU-citizens, 25 % others	75 %	31 %
France	18 % Portugal, 17 % Algeria, 16 % Morocco, 7 % Italy, 6 % Spain, 6 % Tunisia, 5 % Turkey, 6 % other EU-citizens, 19 % others	63 %	45 %
Luxembourg	37 % Portugal, 13 % Italy, 11 % France, 9 % Belgium, 7 % Germany, 3 % UK, 3 % The Netherlands, 6 % other EU-citizens, 11 % others	11 %	15 %
Austria	46 % former Yugoslavia, 19 % Turkey, 31 % other EU-citizens, 4 % others	69 %	17 %
Portugal	23 % Cape Verde, 11 % Brazil, 9 % Angola, 7 % Guinea Bissau, 7 % UK, 6 % Spain, 5 % USA, 14 % other EU-citizens, 18 % others	68 %	16 %
Spain	18 % Morocco, 11 % UK, 8 % Germany, 6 % Portugal, 6 % France, 4 % Italy, 3 % Peru, 19 % other EU-citizens, 25 % others	46 %	68 %
Italy	13 % Morocco, 10 % former Yugoslavia, 6 % Albania, 5 % Tunisia, 5 % Philippines, 4 % Germany, 3 % China, 11 % other EU-citizens, 43 % others	85 %	9 %
Greece	12 % former USSR, 10 % USA, 9 % UK, 6 % Germany, 4 % Egypt, 4 % Philippines, 4 % Bulgaria, 13 % other EU-citizens, 38 % others	62 %	19 %

Source: Based on Kogan (2007: 30 and 38)

Table 3. Descriptive statistics at different time points of the unemployment spell.*

	Natives (month 1)	Non-EU imm. (month 1)	Natives (month 6)	Non-EU imm. (month 6)
Eastern Europe (%)	–	25,1	–	19,4
Africa (%)	–	23,6	–	24,1
Asia (%)	–	7,1	–	8,4
South America (%)	–	8,0	–	8,6
Country of origin unknown (%)	–	36,2	–	39,5
Average age	33,2	35,7*	33,7	36,8*
Female (%)	51,2	50,0	53,5	50,0
Children <12 years (%)	31,8	42,0*	31,7	39,9*
Married (%)	43,1	64,2*	36,8	63,2*
Low educational level (%)	50,2	41,0*	53,5	41,2*
Medium educational level (%)	34,0	36,7	33,4	36,5
High educational level (%)	15,8	22,4*	13,1	22,3*
Average equiv. household income	10 543,6	10 905,5	9 643,5	9 987,9
Total	36 810	1 458	18 744	834

Note: *Significant differences between immigrants and natives at a 5 % level.

performed best. To correct for possible bias in duration dependence as well as for possible correlation between the competing risks, we controlled for unobserved heterogeneity using a parametric approach (Vermunt, 1997). Our choice on the functional form of unobserved heterogeneity is based on the BIC and in the AIC (Agresti, 2002). The conditional transition probability for an individual $_i$ to a competing risk j conditional of remaining t months in unemployment and of a vector of observed characteristics X_{it} can be expressed as:

$$P_j = \left(y_{ij} = j | X_{it}, t, e_{ij}\right) = \frac{\exp\left(b_0^m + b_1^m \ln t + b_2^m X_{it} + e_{ij}\right)}{1 + \sum_{m=1}^{4} \left(b_0^{m'} + b_1^{m'} \ln t + b_2^{m'} X_{it} + e_{ij}\right)}$$

where ε_{ij} represents the unobserved individual fixed effects assumed to be independent of observed characteristics, but varying with destination states j. We further assumed that ε_{ij} follows a standard normal distribution.

Table 4. Results from the competing risk duration model without institutional variables.*

	Model 1		Model 2		
	Inactivity	Employment	Inactivity	Secondary sector	Primary sector
Intercept	**−7,706** (0,156)	**−2,654** (0,069)	**−7,389** (0,147)	**−4,164** (0,112)	**−3,510** (0,096)
Individual level					
Eastern Europe	0,134 (0,180)	**−0,574** (0,134)	−0,073 (0,167)	**−0,263** (0,198)	**−0,546** (0,185)
Africa	−0,277 (0,212)	**−0,528** (0,120)	***−0,372*** (0,205)	**−0,719** (0,190)	***−0,255*** (0,148)
Asia	−0,064 (0,307)	**−0,920** (0,210)	−0,193 (0,295)	−0,258 (0,325)	**−1,204** (0,327)
South America	0,210 (0,245)	−0,154 (0,176)	0,170 (0,229)	−0,363 (0,334)	0,206 (0,232)
Country of origin unknown	0,166 (0,113)	**−0,780** (0,083)	0,050 (0,105)	−0,162 (0,127)	**−1,017** (0,113)
Age	**−0,059** (0,010)	**0,053** (0,007)	**−0,052** (0,009)	**0,025** (0,011)	**0,075** (0,010)
Age2	**0,001** (0,000)	**−0,001** (0,000)	**0,001** (0,000)	**−0,001** (0,000)	**−0,002** (0,000)
Female	**0,547** (0,056)	**−0,110** (0,030)	**0,559** (0,054)	**−0,900** (0,051)	**0,464** (0,041)
Children <12 years	−0,039 (0,081)	0,034 (0,035)	−0,067 (0,079)	**0,182** (0,050)	**−0,120** (0,053)
Married	−0,018 (0,074)	**0,472** (0,037)	0,044 (0,071)	**0,326** (0,057)	**0,440** (0,054)
Female*children	**0,535** (0,088)	**−0,309** (0,046)	**0,502** (0,085)	**−0,285** (0,067)	**−0,242** (0,064)
Female*married	**0,644** (0,080)	**−0,451** (0,045)	**0,544** (0,077)	−0,054 (0,071)	**−0,506** (0,063)
Medium education	**−0,185** (0,039)	**0,049** (0,027)	**−0,168** (0,037)	**−0,621** (0,038)	**0,725** (0,033)
High education	**−0,260** (0,054)	**0,414** (0,031)	**−0,177** (0,052)	**−1,649** (0,070)	**1,512** (0,042)
Equivalent household income	0,001 (0,003)	**0,031** (0,001)	0,005 (0,003)	**0,016** (0,002)	**0,033** (0,002)
Duration dependence	**0,185** (0,018)	**0,085** (0,012)	**0,274** (0,018)	0,011 (0,014)	**0,037** (0,014)
Spell ongoing at the start of the survey	**−0,670** (0,062)	**−0,864** (0,040)	**−0,825** (0,060)	**−0,703** (0,059)	**−0,772** (0,053)
Country level					
Unemployment rate	**−0,009** (0,004)	**−0,044** (0,003)	**−0,015** (0,004)	**−0,023** (0,004)	**−0,068** (0,004)
Finland**	**0,250** (0,100)	**0,526** (0,057)	**0,228** (0,095)	**0,459** (0,103)	**0,534** (0,073)
Denmark	***0,194*** (0,010)	**0,145** (0,060)	**0,216** (0,094)	**0,433** (0,098)	***−0,143*** (0,077)
Belgium	**−0,242** (0,113)	**−0,263** (0,067)	**−0,212** (0,106)	−0,042 (0,114)	**−0,594** (0,088)
France	**−0,281** (0,094)	−0,012 (0,052)	**−0,267** (0,089)	0,097 (0,091)	−0,100 (0,069)
Austria	**0,394** (0,120)	**0,333** (0,071)	**0,428** (0,114)	**0,533** (0,114)	−0,098 (0,103)
Luxembourg	**0,711** (0,200)	−0,023 (0,121)	**0,660** (0,190)	0,012 (0,270)	−0,037 (0,176)
Italy	**0,387** (0,076)	**−0,538** (0,047)	**0,307** (0,072)	**−0,234** (0,084)	**−0,770** (0,065)
Spain	**0,502** (0,078)	***0,088*** (0,047)	**0,481** (0,073)	**0,462** (0,085)	**−0,132** (0,065)
Portugal	−0,017 (0,094)	**−0,152** (0,058)	−0,078 (0,089)	**0,228** (0,093)	**−0,463** (0,078)
Greece	**0,522** (0,084)	**−0,460** (0,053)	**0,418** (0,079)	−0,066 (0,090)	**−0,686** (0,068)
UK	**0,427** (0,121)	**−0,294** (0,074)	**0,394** (0,116)	**−0,581** (0,130)	−0,026 (0,096)
Individual level variance (random effects)	**−0,515** (0,039)	**0,970** (0,018)	**0,087** (0,032)	**−1,329** (0,022)	**1,271** (0,022)
AIC	206986,62			227734,82	
BIC	207642,40			228718,49	

Notes: *__Bold__ coefficients indicate significance at a 5% level while ***bold and italic*** indicates a 10% significance level.
**Germany is the reference category.
Spell sequence and year-dummies are controlled for, but the results are not presented in the table.

We allowed for multiple unemployment spells per individual and included fixed effects to account for differences between them. By accounting for random individual effects, we also corrected for the possible correlation between these spells that is introduced by spell-constant unobserved factors (Van den Berg, 2001). In essence, we therefore estimated a 2-level multilevel model (monthly information nested within individuals) with fixed effects for the order of the multiple spells.

Results of the multivariate analysis

In total, we estimated six different event-history models. Models 1, 3 and 5 explore exits to inactivity or employment, whilst Models 2, 4 and 6 examine transitions into inactivity, the secondary or the primary labour market. Within each set of 3 models, the first serves as a reference as it includes no measures for institutions/structures (Models 1 and 2). The specification of the second and third models differs in the operationalisation of unemployment benefits. More specifically, in Models 3 and 4, benefits are measured with a dummy variable indicating whether the individual receives benefits or not. In Models 5 and 6, benefits are measured by the replacement rate—the amount of unemployment benefit relative to the last monthly salary. Specifically, unemployment benefits were operationalised with 4 dummies corresponding to different replacement levels (0–25%, 25–50%,

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Table 5. Results from the competing risk duration model including institutional variables.*

	Model 3		Model 4		
	Inact.	Empl.	Inact.	Sec.	Prim.
Eastern Europe	2,061 (1,903)	**−3,996** (1,353)	1,949 (1,860)	**−3,825** (1,916)	**−4,444** (1,510)
Africa	1,559 (1,871)	**−3,715** (1,317)	1,412 (1,831)	**−3,985** (1,852)	**−3,833** (1,471)
Asia	1,921 (1,898)	**−3,960** (1,331)	1,780 (1,858)	***−3,496*** (1,902)	**−4,796** (1,502)
South America	2,201 (1,907)	**−3,441** (1,366)	2,111 (1,866)	**−3,778** (1,894)	**−3,489** (1,503)
Country of origin unknown	1,757 (1,779)	**−3,876** (1,234)	1,570 (1,741)	***−3,207*** (1,760)	**−4,612** (1,405)
Benefit exhaustion	**1,098** (0,058)	**0,209** (0,048)	**1,102** (0,058)	0,090 (0,075)	**0,319** (0,061)
Unempl. Benefits	**−0,518** (0,046)	−0,021 (0,023)	**−0,563** (0,045)	0,031 (0,032)	0,020 (0,031)
Unempl. Benefits*Non-EU	−0,193 (0,164)	0,049 (0,109)	−0,156 (0,158)	−0,103 (0,158)	0,124 (0,149)
Unempl. Benefits*exhaustion	**−0,348** (0,134)	**0,301** (0,080)	**−0,349** (0,134)	**0,501** (0,112)	0,053 (0,113)
Replacement rate < 25%	–	–	–	–	–
Replacement rate >25% & <50%	–	–	–	–	–
Replacement rate >50% & <75%	–	–	–	–	–
Replacement rate >75%	–	–	–	–	–
Non-EU*repl. >0 & <25%	–	–	–	–	–
Non-EU*repl. >25% & <50%	–	–	–	–	–
Non-EU*repl. >50% & <75%	–	–	–	–	–
Non-EU*repl. >75%	–	–	–	–	–
Exhaust.*repl. >0 & <25%	–	–	–	–	–
Exhaust.*repl. 25% & <50%	–	–	–	–	–
Exhaust.*repl. 50% & <75%	–	–	–	–	–
Exhaust.*repl. >75%	–	–	–	–	–
EPL	0,002 (0,088)	***0,086*** (0,045)	0,019 (0,086)	0,044 (0,066)	**0,141** (0,061)
Non-EU*EPL	0,140 (0,158)	−0,069 (0,106)	0,162 (0,154)	−0,114 (0,161)	−0,122 (0,140)
Size of sec. lab.	***0,129*** (0,066)	−0,045 (0,035)	***0,113*** (0,065)	−0,009 (0,048)	−0,003 (0,050)
Size of sec. lab.2	***−0,002*** (0,001)	0,001 (0,001)	−0,002 (0,001)	0,000 (0,001)	−0,000 (0,001)
Non-EU*size	−0,116 (0,125)	**0,257** (0,085)	−0,111 (0,122)	**0,281** (0,121)	**0,288** (0,098)
Non-EU*size2	0,001 (0,002)	**−0,004** (0,001)	0,001 (0,002)	**−0,004** (0,002)	**−0,004** (0,002)
% of asylum seekers	−0,037 (0,059)	**0,145** (0,029)	−0,031 (0,058)	**0,240** (0,044)	0,056 (0,039)
Non-EU*asylum Seekers	0,010 (0,087)	**−0,236** (0,060)	−0,033 (0,084)	**−0,254** (0,084)	**−0,202** (0,081)
AIC	206403,31		227080,70		
BIC	207251,03		228352,28		

Notes: *__Bold__ coefficients indicate significance at a 5% level while ***bold and italic*** coefficients indicate a 10% significance level. The results for the control variables are available upon request.

50–75%, and larger than 75%). Due to the loss of statistical power, we could only include an interaction between a general dummy for immigrants and each institution/structure.[12] Estimates of Models 1 and 2 are presented in Table 4. The estimates of Models 3 to 6 for the main variables of interest are presented in Tables 5 and 6. By looking at the model-fit measures (see the bottom of Tables 4–6), we concluded that the preferred models are those that control for host country features and operationalize unemployment benefits as replacement rate (Models 5 and 6).[13]

The estimates of the reference models (see Table 4) confirm that immigrants are less likely to exit to employment than are native-born (see Model 1). Immigrants from Asia are the most disadvantaged group. When distinguishing between exits to the primary and to the secondary labour market (Model 2), it is evident that this effect is stronger for transitions into the primary sector for immigrants coming from Eastern Europe and from Asia, and for transitions into the secondary labour market for immigrants coming from Africa and South America. In contrast to the findings concerning exits to employment, there is hardly any evidence for immigrant–native-born differences in transitions to inactivity. The only significant difference between immigrants and native-born for transitions to inactivity emerges for migrants coming from Africa. These immigrants are significantly less likely to move to inactivity than are native-born. Probably this is because African immigrants uniformly are in a disadvantaged position and have so

[12] This is similar to the approach of Kogan (2006).

[13] According to the guidelines defined by Raftery (1995), when the BIC improves with more than 10, the evidence in favour of the extended model is very strong.

Table 6. Results from the competing risk duration model including institutional variables and replacement rate indicators.*

	Model 5		Model 6		
	Inact.	Empl.	Inact.	Sec.	Prim.
Eastern Europe	1,807 (1,889)	**−3,573** (1,307)	1,776 (1,847)	**−3,716** (1,868)	**−4,238** (1,492)
Africa	1,311 (1,857)	**−3,288** (1,274)	1,248 (1,817)	**−3,843** (1,806)	**−3,615** (1,453)
Asia	1,626 (1,890)	**−3,523** (1,285)	1,579 (1,850)	***−3,315*** (1,848)	**−4,566** (1,482)
South America	1,991 (1,895)	**−3,060** (1,326)	1,975 (1,854)	**−3,706** (1,852)	**−3,230** (1,487)
Country of origin unknown	1,461 (1,763)	**−3,446** (1,189)	1,363 (1,726)	***−3,012*** (1,707)	**−4,396** (1,386)
Benefit exhaustion	**1,088** (0,057)	**0,214** (0,046)	**1,093** (0,057)	0,100 (0,071)	**0,320** (0,059)
Unempl. Benefits	–	–	–	–	–
Unempl. Benefits*Non-EU	–	–	–	–	–
Unempl. Benefits*exhaustion	–	–	–	–	–
Replacement rate < 25%	**−0,323** (0,086)	−0,020 (0,040)	**−0,421** (0,084)	0,094 (0,057)	0,072 (0,054)
Replacement rate >25% & <50%	**−0,601** (0,071)	**−0,185** (0,032)	**−0,655** (0,069)	**−0,173** (0,048)	***−0,076*** (0,044)
Replacement rate >50% & <75%	**−0,582** (0,065)	**−0,117** (0,031)	**−0,628** (0,064)	***−0,084*** (0,043)	***−0,076*** (0,043)
Replacement rate >75%	**−0,541** (0,063)	**0,189** (0,028)	**−0,550** (0,061)	**0,229** (0,040)	**0,173** (0,040)
Non-EU*repl. >0 & <25%	***−1,163*** (0,529)	−0,071 (0,206)	**−1,061** (0,518)	−0,208 (0,285)	−0,059 (0,262)
Non-EU*repl. >25% & <50%	**NS**	**NS**	**NS**	**NS**	**NS**
Non-EU*repl. >50% & <75%	**NS**	**NS**	**NS**	**NS**	**NS**
Non-EU*repl. >75%	0,234 (0,211)	**−0,361** (0,122)	0,171 (0,204)	**−0,573** (0,184)	−0,143 (0,162)
Exhaust.*repl. >0 & <25%	**NS**	**NS**	**NS**	**NS**	**NS**
Exhaust.*repl. 25% & <50%	−0,287 (0,244)	**0,422** (0,131)	−0,258 (0,243)	**0,679** (0,174)	0,126 (0,195)
Exhaust.*repl. 50% & <75%	−0,305 (0,228)	0,140 (0,134)	−0,292 (0,227)	**0,424** (0,176)	−0,234 (0,205)
Exhaust.*repl. >75%	***−0,452*** (0,236)	**0,438** (0,120)	**−0,462** (0,235)	**0,594** (0,162)	0,241 (0,174)
EPL	0,009 (0,088)	**0,089** (0,045)	0,025 (0,086)	0,055 (0,067)	**0,143** (0,061)
Non-EU*EPL	0,169 (0,160)	−0,091 (0,105)	0,190 (0,155)	−0,158 (0,164)	−0,142 (0,141)
Size of sec. lab.	***0,127*** (0,066)	−0,046 (0,035)	***0,112*** (0,065)	−0,012 (0,048)	−0,002 (0,050)
Size of sec. lab.2	−0,002 (0,001)	0,001 (0,001)	−0,002 (0,001)	0,000 (0,001)	−0,000 (0,001)
Non-EU*size	−0,103 (0,124)	**0,238** (0,083)	−0,103 (0,122)	**0,276** (0,119)	**0,282** (0,097)
Non-EU*size2	0,001 (0,002)	**−0,003** (0,001)	0,001 (0,002)	**−0,004** (0,002)	**−0,004** (0,002)
% of asylum seekers	−0,035 (0,059)	**0,143** (0,029)	−0,030 (0,058)	**0,236** (0,044)	0,056 (0,039)
Non-EU*asylum Seekers	−0,029 (0,086)	**−0,225** (0,060)	−0,051 (0,083)	**−0,237** (0,085)	**−0,197** (0,081)
AIC	206252,40		226953,88		
BIC	207196,09		228369,41		

Notes: ***Bold** coefficients indicate significance at a 5% level while ***bold and italic*** coefficients indicate a 10% significance level. The results for the control variables are available upon request.

few resources that withdrawing from the labour market is not an option.

Hypothesis 1 suggests that benefits provide disincentive effects for employment that are stronger for immigrants than for native-born. As shown in the second column of Model 3, both the main effect of the dummy for benefits and the interaction with the immigrant dummy are insignificant. The second column of Model 6 suggests that the differences between immigrants and native-born emerge only when making a transition into the secondary labour market and the replacement rate of benefits is larger than 75%. Therefore and in line with Hypothesis 1, it seems that very generous benefits increase the reservation wage of immigrants more than that of native-born.

To examine further the aforementioned findings, we plotted the predicted probabilities for transitions to the secondary sector for immigrants and for native-born (see Figure 3).[14] This figure shows that the most generous benefits have a positive effect for native-born, but not for immigrants. More specifically, for immigrants, the transition probability to the secondary labour market is practically the same for those who do not receive benefits and those with the highest replacement rates. Therefore, in line with Hypothesis 2, there is no reason to believe that high replacement rates produce disincentive effects for immigrants.

Hypothesis 2 suggests that benefits provide economic and personal resources to sustain job search that are more important for immigrants than for native-born. The existence of such resources is generally

[14] These predicted probabilities are calculated as weighted means of the Class-specific estimates. The posterior membership probabilities are used as weights. More information on the calculation of these predicted probabilities can be found in Vermunt and Magidson (2013).

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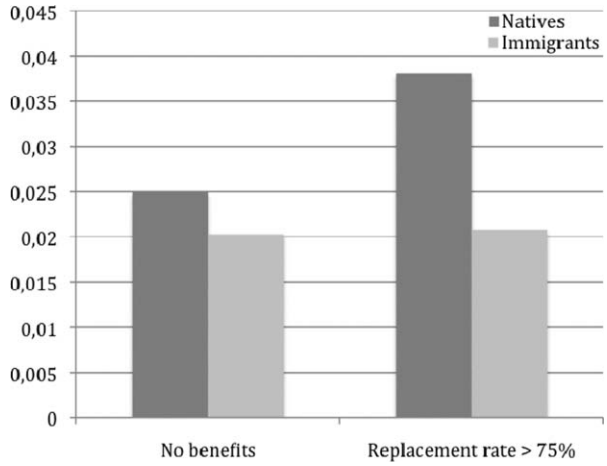

Figure 3. Predicted probabilities for transitions to the secondary labour market and different benefit levels.
Note: *Calculations are based on 6–12 months of unemployment.

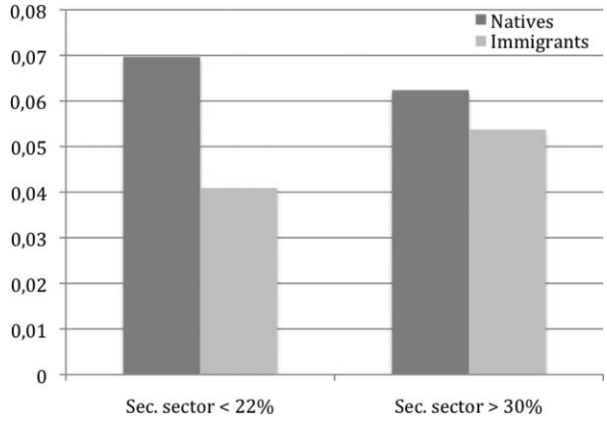

Figure 5. Predicted probabilities for transitions to employment and size of the secondary sector.
Note: *Calculations are based on 6–12 months of unemployment.

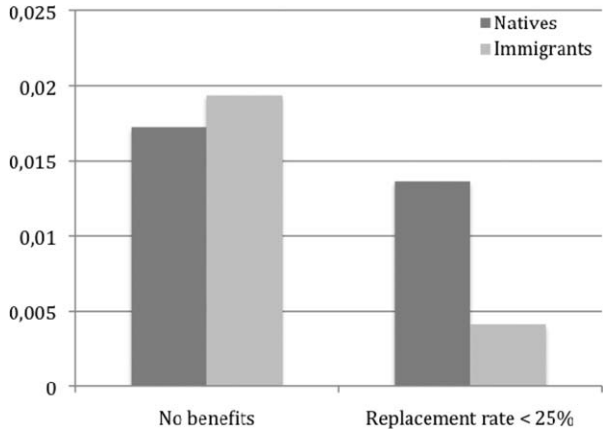

Figure 4. Predicted probabilities for transitions to inactivity and different benefit levels.
Note: *Calculations are based on 6–12 months of unemployment.

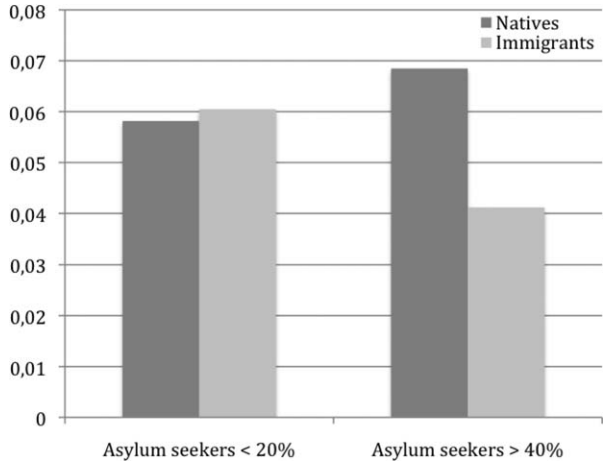

Figure 6. Predicted probabilities for transitions into the secondary sector and proportion of asylum seekers.
Note: *Calculations are based on 6–12 months of unemployment.

confirmed by Models 3 and 4, as unemployed who receive unemployment benefits are less likely to make a transition into inactivity. However, these two models suggest that no differences between immigrants and native-born exist. When shifting our attention to Models 5 and 6, we see that immigrants receiving low benefits are much less likely to exit to inactivity than are native-born. This is further illustrated in Figure 4, which shows that the predicted probabilities of becoming inactive is roughly equal for immigrants and native-born who do not receive benefits. In contrast, for those receiving the lowest levels of benefits, the conditional probability of becoming inactive is much lower (almost zero) for immigrants than for native-born. Therefore, in accordance with Hypothesis 2, low benefits provide stronger incentives or resources for immigrants than for native-born to sustain job search.

Hypothesis 3 suggests that the unemployment duration gap between immigrants and native-born increases with the strictness of employment protection, especially for transitions to the primary labour market. This hypothesis is not confirmed by our analysis, as the interaction between EPL and the immigrant dummy is insignificant in Models 3 to 6. Actually, for both native-born and immigrants, strict EPL increases the conditional probability of exiting to employment (see Models 3 and 5), and in particular for exits to the primary labour market (see Models 4 and 6).

Hypothesis 4 suggests that transitions to the secondary sector increase more for immigrants than for native-born with the demand for low-skilled labour. For all models, a curve linear relationship is assumed between the demand for low-skilled labour and the conditional probability of exiting from unemployment. The results confirm Hypothesis 4, as the conditional probability for exiting to the secondary labour market increases with the size of the demand for low-skilled labour for immigrants but not for native-born.

Interestingly, we find the same result also for the primary labour market. It seems that although immigrants are overrepresented in the secondary sector, the increased availability of low-skilled jobs has spill-over effects that improve the overall labour market position of immigrants. This becomes obvious in Figure 5, which presents the average predicted probabilities for native-born and immigrants when the size of the low-skilled labour force is small (<22%) and large (>30%). When the low-skilled sector is small, immigrants have, on average, about a 2.5% lower predicted probability to enter employment than native-born. This disadvantage reduces to about 0.5% when the low-skilled sector reaches 30%.

Finally, Hypothesis 5 suggests that immigrants are more likely to remain unemployed and to leave the labour market when immigration policy is driven by humanitarian considerations. The percentage for asylum seekers is used as a proxy for the orientation of immigration policy. Results from Models 3 and 5 suggest that the higher the percentage of asylum seekers, the lower is the likelihood for immigrants to make a transition to employment. This is illustrated in Figure 6, which presents the average predicted probabilities for exits to the secondary labour market when the percentage of asylum seekers is small (<20%) and large (>40%). When there are few asylum seekers, the probability of moving to the secondary sector is, on average, similar for native-born and immigrants. However, when the proportion of asylum seekers exceeds 40%, immigrants are more disadvantaged. Finally, contrary to Hypothesis 5, immigration policy is irrelevant for transitions to inactivity.

Conclusions and discussion

Immigrants suffer from higher unemployment rates in Scandinavia and Continental Europe than in the Southern and Anglo-Saxon European countries. This has raised concern whether generous welfare states create disincentives for immigrant employment. Such a suspicion is reinforced by previous research which studied unemployment incidence and measured welfare generosity at welfare regime level (Kesler, 2006; Kogan, 2006). In this study, we examined the effect of host country features—unemployment benefits, EPL, size of the low-skilled labour market and immigration policy—on the unemployment duration gap between immigrants and native-born, distinguishing between three exit states from unemployment (inactivity, secondary and primary labour market exits). We tested empirically the comparative theoretical framework with the use of individual level measures for unemployment benefits.

Our analysis reveals that immigrants from Asia, Africa and Eastern Europe experience more persistent unemployment than native-born, especially when exiting to the primary labour market. However, immigrants in unemployment are typically less likely than native-born to become discouraged and leave the labour force. Related to the effects of host country characteristics, our analysis suggests that disincentive effects of benefits, if any, are very small. In some cases, unemployment benefits even decrease transitions out of the labour force for immigrants (more than for native-born) and thereby prevent marginalisation. Therefore, our results do not indicate that the large unemployment-duration gap between immigrants and native-born in some countries is caused by access to generous unemployment benefits.

Our analysis also reveals that immigrants fare better in labour markets with a high demand for low-skilled labour. This is in line with the idea that as immigrants are over-represented in low-skilled jobs, their labour market chances increase with the availability of such jobs. Surprisingly, this does not only concern the secondary labour market, but also the primary. A possible mechanism for this spill-over effect is that as the unemployment rate of immigrants tends to be relatively low in labour markets with a large secondary sector, immigrants are less likely to become stigmatised. Furthermore, immigrants probably also face less human capital depreciation when there is a high demand for low-skilled labour because it is easier for them to find a low-skilled job right away upon arrival. This job may then serve as a stepping-stone into a job in the primary sector.

According to the comparative theoretical framework presented above, employment protection is supposed to intensify the division between insiders and outsiders on the labour market and drive immigrants to the outsiders group. This is not confirmed by our analysis. Strict EPL neither leads to longer unemployment duration for immigrants nor does it increase ethnic job segregation or transitions to inactivity.

Finally, we expected that a humanitarian-oriented immigration policy would be associated with poorer labour market integration of immigrants as refugees often face problems that make their labour market integration difficult. We indeed found evidence that the nativity unemployment-duration gap is larger in countries with many humanitarian migrants. However, our results do not indicate that a humanitarian immigration policy leads to increased dropouts from the labour force.

All in all, we confirm that institutions impinge upon the labour market allocation of immigrants, but we contend that access to social security has disincentive effects for immigrants. Our findings therefore have important implications for policy makers. It is important for policy makers to adapt their policies according to the type of migrants they receive and the general institutional structure. Countries with many humanitarian

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migrants and a low demand for low-skilled labour need to provide more support for integrating their immigrant population on the labour market than do those countries that have received many labour migrants and/or have a high demand for low-skilled labour. An active integration strategy, which includes access to social protection for immigrants and participation in active labour market policies, is probably a necessary strategy for the Scandinavian and Continental European countries in order for their immigrants to overcome other employment barriers. In line with this, since the beginning of the new millennium newly arrived immigrants have been offered official integration programmes throughout Scandinavia. Sometimes, active participation is a condition for benefit recipiency (Brochmann & Hagelund, 2011). Such policies are less developed in other European countries (Rinne, 2013).

This study also has significant implications for future research. Our findings highlight the importance of examining the nativity unemployment-duration gap, while measuring economic incentives at individual level rather than by only examining macrolevel indicators. However, international surveys represent certain challenges for this and other comparative studies. First, institutional and policy indicators are not always measured at individual level (e.g., benefit recipiency, immigration background, participation in active labour market policies). Second, the identification of immigrant- and migration-related variables is often not very detailed. The current study has distinguished between regions of birth, but it would have been ideal to obtain information about country of birth. Likewise, it was not possible to control for duration of residence and cultural-linguistic distance to the host country.[15] The development of new international longitudinal datasets that overcome these challenges could facilitate more detailed research about the effectiveness of different integration efforts (e.g., introductory programmes) and better account for potential selection processes related to migration that have been identified by previous research (Pedersen et al., 2008).

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